

REMARKS

The Official Action mailed March 23, 2006, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on October 5, 2001; February 12, 2004; June 24, 2005; and August 15, 2005.

Claims 1-18, 37-54, 73-90, 109-126 and 145-184 are pending in the present application, of which claims 1, 10, 37, 46, 73, 82, 109, 118, 145, 152, 159 and 166 are independent. Each of the independent claims has been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action objects to the drawings under 37 CFR § 1.83(a) asserting that one claimed feature is not shown in the drawings. Specifically, the Official Action asserts that the drawings do not show "the current source provided in the source signal line driving circuit, as opposed to outside of the source signal line driving circuit (see (105) Figure 1), for supplying a current to the level shifter" (page 2, Paper No. 20060218; emphasis in original). In response, the independent claims have been amended, without prejudice or disclaimer, to remove the phrase "provided in the source signal line driver." Therefore, the objection is now moot.

Paragraph 5 of the Official Action rejects claims 1-9, 37-45, 145-151, 173 and 181 as obvious based on the combination of U.S. Patent No. 5,953,003 to Kwon and U.S. Patent No. 6,121,760 to Marshall. Paragraph 6 of the Official Action rejects claims 10-18, 46-54, 73-90, 109-126, 152-172, 174, 176-180 and 182-184 as obvious based on the combination of Kwon, U.S. Patent No. 5,547,475 to Callahan and Marshall. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 1, 10, 37, 46, 73, 82, 109, 118, 145, 152, 159 and 166 have been amended to recite a current source for supplying a current to a level shifter based on a pulse from a shift register or a decoder, and that only when the shift register or the decoder serially outputs pulses, the current source supplies the current and the level shifter is operated. For the reasons provided below, Kwon, Marshall and Callahan, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

The Official Action asserts that Kwon teaches "a level shifter (44, 56)" and "a current source (46, 58) ... supplying a current to the level shifter" (page 4, Paper No. 20060218) (Figure 3 of Kwon reproduced below).

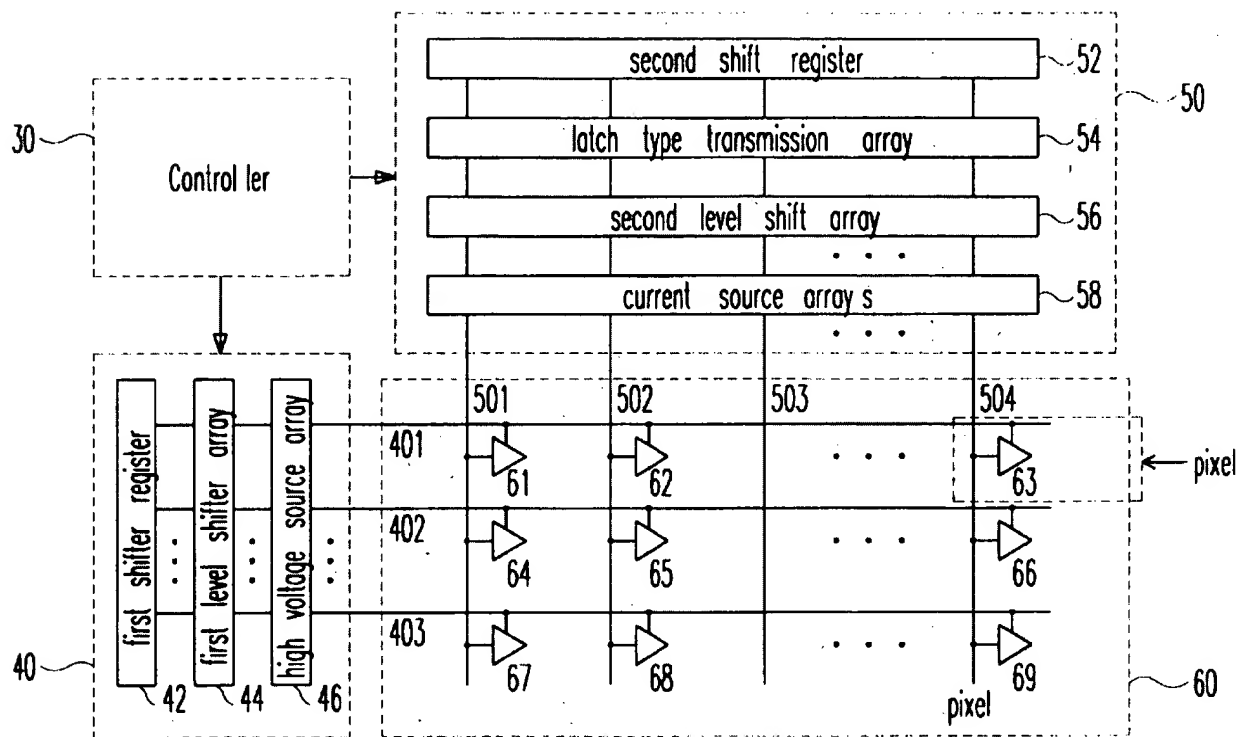


Fig. 3

That is, the Official Action appears to be asserting that the high voltage source array 46 and the current source array 58 of Kwon correspond with the claimed current source, and that the first level shifter array 44 and the second level shifter array 56 of Kwon correspond with the claimed level shifter. The Applicant respectfully disagrees and traverses the above-referenced assertions in the Official Action.

Kwon appears to teach that "[e]ach of the current sources constituting the current source array 58 supplies the increased current according to the logic value of the pixel data" (see column 4, lines 37-39; and Figure 3). Also, Kwon appears to teach that "[a] second level shifter array 56 connected between the latch type transmission array 54 and the current source array 58 serves to [shift] the voltage level of the pixel data output from the latch type transmission array 54 into the voltage level adequate to the current source array 58" (see column 4, lines 53-57; and Figure 3). That is, Kwon appears to

teach a level shifter 56 for supplying a voltage to a current source 58; however, Kwon does not teach or suggest a current source for supplying a current to a level shifter.

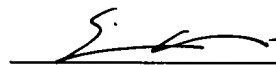
Marshall and Callahan do not cure the deficiencies in Kwon. Marshall is relied upon to allegedly teach "a power regulator wherein a shift register, having a plurality of stages, or units ... operates with respect to clock pulses from a clock signal in which the clock signals are generated in association with the power control pulses" (page 4, Paper No. 20060218) and on Callahan to allegedly teach a source signal line driving circuit composed of signal drivers and a gate line driver composed of a plurality of gate drivers and a decoder included in the source signal line driving circuit for outputting pulses in accordance with input signals (page 8, *Id.*).

However, Kwon, Marshall and Callahan, either alone or in combination, do not teach or suggest that Kwon should be modified so that a current source supplies a current to a level shifter. Therefore, Kwon, Marshall and Callahan, either alone or in combination, do not teach or suggest a current source for supplying a current to a level shifter based on a pulse from a shift register or a decoder, and that only when the shift register or the decoder serially outputs pulses, the current source supplies the current and the level shifter is operated.

Since Kwon, Marshall and Callahan do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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